EXAMINER'S AMENDMENT

1.   An examiner's amendment to the record appears below. Should the changes

and/or additions be unacceptable to applicant, an amendment may be filed as provided

by 37 CFR 1.312. To ensure consideration of such an amendment, it MUST be

submitted no later than the payment of the issue fee.

Authorization for this examiner's amendment was given in a telephone interview

with Manabu Kanesaka, Reg. No. 31,467 on 06/02/2009.

2.   The application is amended as follows:

3.   Claims:

Claim 6 is replaced with the following:

A parameter tuning device for tuning a large number of parameters in a physical

model of a semi-conductor device, comprising:

parameter tuning means for defining chromosomes having a plurality of

respective parameters of the physical model for performing simulation of the

semiconductor device as a gene and optimizing the plurality of parameters of said

physical model using a genetic algorithm based on characteristic measurement data of

a test-manufactured semiconductor device, and

said parameter tuning means including a child chromosome generating means,

said child chromosome generating means obtaining a center of gravity of a parent

chromosome group in a vector space selected in a crossover process in the genetic

algorithm;

determining a hyper-polyhedron on a vector space shown by a peak of vectors

which extend to each selected parent chromosome from said center of gravity and are

respectively multiplied by predetermined times; and

generating a child individual using a uniformly distributed random number so as

to be housed inside said hyper-polyhedron and be used in a simulation of a LSI

manufacture on an LSI processing line using physical models of transistors.

ALLOWANCE

4.   The following is an examiner's statement of reasons for allowance:

Claims 3-7 are considered allowable since when reading the claims in light of the

specification, as per MPEP §2111.01, none of the references of record alone or in

combination disclose or suggest the combination of limitations specified in independent

claims, including an invention of a *parameter tuning device for tuning a large number of*

parameters in a physical model of a semiconductor device comprising a parameter

tuning means for defining chromosomes having a plurality of respective parameters of a

physical model for performing simulation of a semiconductor device as a gene (defined

at e.g. ¶ 0001).

Specifically, independent claim 6 discloses optimizing the plurality of parameters

of said physical model using a genetic algorithm based on characteristic measurement

data of a test-manufactured semiconductor device (defined at e.g. ¶), and determining

a hyper-polyhedron on a vector space shown by a peak of vectors which extend to each

selected parent chromosome from the center of gravity and are respectively multiplied

by predetermined times (defined at e.g. ¶); and generating a child individual using a

uniformly distributed random number so as to be housed inside said hyper-polyhedron

(defined at e.g. ¶).

A practical application of the invention would be manufacturing of an LSIC

(defined at e.g. ¶ 0002).

5.   Any comments considered necessary by applicant must be submitted no later

than the payment of the issue fee and, to avoid processing delays, should preferably

accompany the issue fee. Such submissions should be clearly labeled "Comments on

Statement of Reasons for Allowance."

Correspondence Information

Any inquiry concerning this communication or earlier communications from the

examiner should be directed to KALPANA BHARADWAJ whose telephone number is

(571)270-1641. The examiner can normally be reached on Monday-Friday 7:30am 5:00

pm EST.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's

supervisor, David Vincent can be reached on (571) 272-3080. The fax phone number

for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the

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published applications may be obtained from either Private PAIR or Public PAIR.

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USPTO Customer Service Representative or access to the automated information

system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Bharadwaj Kalpana/
Examiner, Art Unit 2129
/David R Vincent/
Supervisory Patent Examiner, Art Unit 2129